

ABSTRACT OF THE DISCLOSURE

The present invention is a technique and apparatus for acquiring anatomic information used in diagnosing and characterizing abdominal aortic aneurismal disease and the like.

5 This technique provides anatomic information, in the form of images, using a combination of a plurality of magnetic resonance angiography sequences, including a spin-echo and four contrast enhanced (e.g., gadolinium) magnetic resonance angiography sequences. The anatomic images may be used in, for example,
10 pre-operative, operative and post-operative evaluation of aortic pathology, including aneurysms, atherosclerosis, and occlusive disease of branch vessels such as the renal arteries. The gadolinium-enhanced magnetic resonance angiography provides sufficient anatomic detail to detect aneurysms and all relevant
15 major branch vessel abnormalities seen at angiography operation. This technique and apparatus allows for imaging the aorta at a fraction of the cost of conventional aortography and without the risks of arterial catheterization or iodinated contrast.